



# STIC Search Report

## EIC 3600

STIC Database Tracking Number: 130447

TO: Examiner Aaron Dunwoody  
Location: PK5 2C20  
Art Unit : 3679  
Tuesday, August 24, 2004  
Case Serial Number: 10/685265

From: Ginger Roberts DeMille  
Location: EIC 3600  
PK5-Suite 804  
Phone: 305-5774

Ginger.roberts@uspto.gov

### Search Notes

Dear Examiner Dunwoody:

Please find attached the results of your search for 10/685265.

If you have any questions, please do not hesitate to contact me.

Thanks for using EIC3600!

Ginger



Best Available Copy

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? b 411

25aug04 07:39:24 User249839 Session D6054.1  
\$0.00 0.160 DialUnits FileHomeBase  
\$0.00 Estimated cost FileHomeBase  
\$0.02 TELNET  
\$0.02 Estimated cost this search  
\$0.02 Estimated total session cost 0.160 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)

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\*\*\* DIALINDEX search results display in an abbreviated \*\*\*  
\*\*\* format unless you enter the SET DETAIL ON command. \*\*\*

? sf all

You have 559 files in your file list.

(To see banners, use SHOW FILES command)

? s (nonanediamine or non()anediamine)(s)methyl(t)octanediamine?

Your SELECT statement was:

s (nonanediamine or non()anediamine)(s)methyl(t)octanediamine?

Items	File
Examined 50 files	
Examined 100 files	
Examined 150 files	
Examined 200 files	
2	348: EUROPEAN PATENTS_1978-2004/Aug W03
Examined 250 files	
40	399: CA SEARCH(R)_1967-2004/UD=14109
Examined 300 files	
Examined 350 files	
Examined 400 files	
3	654: US Pat.Full._1976-2004/Aug 24
Examined 450 files	
Examined 500 files	
Examined 550 files	

3 files have one or more items; file list includes 559 files.

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? show files;ds

File 348:EUROPEAN PATENTS 1978-2004/Aug W03

(c) 2004 European Patent Office

File 399:CA SEARCH(R) 1967-2004/UD=14109

(c) 2004 American Chemical Society

File 654:US Pat.Full. 1976-2004/Aug 24

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Set	Items	Description
S1	45	(NONANEDIAMINE OR NON()ANEDIAMINE) (S) METHYL(T) OCTANEDIAMIN- E?
S2	1	S1 AND (CONNECT?R? OR JOINT? ?)
S3	39	S1 NOT PY>2003
S4	37	RD (unique items)

? t4/3,k/all

>>>KWIC option is not available in file(s): 399

4/3,K/1 (Item 1 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01637584

**Process for producing diamines from dialdehydes**

**Verfahren zur Herstellung von Diaminen aus Dialdehyden**

**Procede de preparation de diamines a partir de dialdehydes**

PATENT ASSIGNEE:

Kuraray Co., Ltd., (2727591), 1621, Sakazu, Kurashiki-shi, Okayama

710-8622, (JP), (Applicant designated States: all)

INVENTOR:

Tokuda, Yoshihiro, c/o Kuraray Co. Ltd., 2045-1, Sakazu, Kurashiki-shi,  
Okayama 710-0801, (JP)

Suzuki, Shigeaki, c/o Kuraray Co. Ltd., 12-39, Umeda 1-chome, Kita-ku,  
Osaka-shi, Osaka 530-8611, (JP)

LEGAL REPRESENTATIVE:

Tanner, James Percival et al (55353), D. Young & Co, 21 New Fetter Lane,  
London EC4A 1DA, (GB)

PATENT (CC, No, Kind, Date): EP 1348688 A1 031001 (Basic)

APPLICATION (CC, No, Date): EP 2003251898 030326;

PRIORITY (CC, No, Date): JP 200287552 020327

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;  
HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: C07C-209/26; C07C-211/09

ABSTRACT WORD COUNT: 135

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200340	671
SPEC A	(English)	200340	8244
Total word count - document A			8915
Total word count - document B			0
Total word count - documents A + B			8915

...SPECIFICATION dialdehyde used. Examples of the diamine are linear aliphatic diamines, e.g. butanediamine, hexanediamine, octanediamine, **nonanediamine**, decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2- **methyloctanediamine**

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, 2- **methylnonanediamine** and 2,7- **dimethyloctanediamine** ; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...

4/3,K/2 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00968362

Process for producing diamines from dialdehydes

Verfahren zur Herstellung von Diamines aus Dialdehyden

Procede de preparation de diamines a partir de dialdehydes

PATENT ASSIGNEE:

Kuraray Co., Ltd., (298715), 1621 Sakazu, Kurashiki-City, Okayama  
710-8622, (JP), (Proprietor designated states: all)

INVENTOR:

Nagareda, Katsushi, c/o Kuraray Co., Ltd., 2045-1, Sakazu, Kurashiki-shi,  
Okayama-ken, 710-2801, (JP)

Tokuda, Yoshihiro, c/o Kuraray Co., Ltd., 2045-1, Sakazu, Kurashiki-shi,  
Okayama-ken, 710-2801, (JP)

Suzuki, Shigeaki, c/o Kuraray Co., Ltd., 12-39, Umeda 1-chome, Kita-ku,  
Osaka-shi, 530-8611, (JP)

LEGAL REPRESENTATIVE:

Muller-Bore & Partner Patentanwalte (100651), Grafinger Strasse 2, 81671  
Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 878462 A1 981118 (Basic)  
EP 878462 B1 010919

APPLICATION (CC, No, Date): EP 98108729 980513;

PRIORITY (CC, No, Date): JP 97123867 970514

DESIGNATED STATES: CH; DE; FR; GB; IT; LI; NL

INTERNATIONAL PATENT CLASS: C07C-209/26

ABSTRACT WORD COUNT: 75

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199847	138
CLAIMS B	(English)	200138	145
CLAIMS B	(German)	200138	141
CLAIMS B	(French)	200138	159
SPEC A	(English)	199847	4689
SPEC B	(English)	200138	4793
Total word count - document A			4828
Total word count - document B			5238
Total word count - documents A + B			10066

...SPECIFICATION nonanediamine, decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2- **methyloctanediamine** , 2- **methylnonanediamine** and 2,7- **dimethyloctanediamine** ; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...

...SPECIFICATION starting material dialdehydes, there are obtained, correspondingly, linear aliphatic diamines, e.g. butanediamine, hexanediamine, octanediamine, **nonanediamine** , decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine,

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octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2- **methyloctanediamine** , 2- **methylnonanediamine** and 2,7- **dimethyloctanediamine** ; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...

**4/3,K/3 (Item 1 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

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**140060884 CA: 140(5)60884k JOURNAL**

**Influence of moisture on the viscoelastic relaxations in long aliphatic chain contained semiaromatic polyamide, (PA9-T) fiber**

**AUTHOR(S):** Uddin, Ahmed Jalal; Ohkoshi, Yutaka; Gotoh, Yasuo; Nagura, Masanobu; Hara, Tetsuya

**LOCATION:** Faculty of Textile Science and Technology, Shinshu University, Nagano, Japan, 386-8567

**JOURNAL:** J. Polym. Sci., Part B: Polym. Phys. (Journal of Polymer Science, Part B: Polymer Physics) **DATE:** 2003 **VOLUME:** 41 **NUMBER:** 22

**PAGES:** 2878-2891 **CODEN:** JPBPEM **ISSN:** 0887-6266 **LANGUAGE:** English

**PUBLISHER:** John Wiley & Sons, Inc.

**4/3,K/4 (Item 2 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

**139308974 CA: 139(20)308974k PATENT**

**Sealing materials with creep resistance**

**INVENTOR(AUTHOR):** Oka, Hideaki; Masuda, Haruhisa

**LOCATION:** Japan,

**ASSIGNEE:** Kuraray Co., Ltd.

**PATENT:** Japan Kokai Tokkyo Koho ; JP 2003292941 A2 **DATE:** 20031015

**APPLICATION:** JP 200294815 (20020329)

**PAGES:** 9 pp. **CODEN:** JKXXAF **LANGUAGE:** Japanese **CLASS:** C09K-003/10A; C08G-069/26B; F16J-015/02B; F16J-015/10B

**4/3,K/5 (Item 3 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

**139198772 CA: 139(13)198772h PATENT**

**Loop fasteners with good durability for hook-and-loop fasteners**

**INVENTOR(AUTHOR):** Tanaka, Takaaki; Higashinaka, Yukitoshi; Katayama, Takashi

**LOCATION:** Japan,

**ASSIGNEE:** Kuraray Co., Ltd.

**PATENT:** Japan Kokai Tokkyo Koho ; JP 2003245108 A2 **DATE:** 20030902

**APPLICATION:** JP 200249671 (20020226)

**PAGES:** 5 pp. **CODEN:** JKXXAF **LANGUAGE:** Japanese **CLASS:** A44B-018/00A; D03D-027/00B; D01F-006/60B

**4/3,K/6 (Item 4 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

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**139053982 CA: 139(4)53982s PATENT**

**Melt-moldable polyamide compositions and their use in sealants for electric or electronic components**

INVENTOR(AUTHOR): Oka, Hideaki; Sasaki, Shigeru

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2003176408 A2 DATE: 20030624

APPLICATION: JP 2002273474 (20020919) \*JP 2001288000 (20010921)

PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A; C08G-069/26B; C08K-003/00B; H01L-023/29B; H01L-023/31B

**4/3,K/7 (Item 5 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

**138361416 CA: 138(23)361416k PATENT**

**Paper-like separators having good resistance to heat and electrolytic solutions and double-layer capacitors therewith**

INVENTOR(AUTHOR): Katayama, Takashi; Yorimitsu, Shuhei; Sugo, Nozomu

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2003142341 A2 DATE: 20030516

APPLICATION: JP 2001339599 (20011105)

PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: H01G-009/02A

**4/3,K/8 (Item 6 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

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**138239335 CA: 138(16)239335t PATENT**

**Mesh cloths with high tensile strength, heat resistance and resistance to chemicals comprising core-sheath conjugate monofilaments having the core comprising poly(ethylene terephthalate) and the sheath comprising semiaromatic polyamides containing terephthalic acid units and 1,9-nonanediamine units**

INVENTOR(AUTHOR): Higasa, Kazuyuki; Nakagawa, Masahiro

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 200382554 A2 DATE: 20030319

APPLICATION: JP 2001269631 (20010906)

PAGES: 4 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D03D-015/00A; D21F-001/10B; D21F-007/08B; D01F-008/12B; D01F-008/14B

**4/3,K/9 (Item 7 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

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**138239323 CA: 138(16)239323n PATENT**

**Fibrillated fibers with silk-like dry and soft handle comprising fibers having intermittent fibrils in the fiber axis direction and having the fibrils consisting of thermoplastic polyamides containing units of arom. dicarboxylic acids and aliphatic diamines and manufacture thereof**

INVENTOR(AUTHOR): Nakatsuka, Hitoshi; Tanaka, Kazuhiko; Kawamoto, Masao

LOCATION: Japan,

Search Report from Ginger R. DeMille

ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 200382526 A2 DATE: 20030319  
APPLICATION: JP 2001268451 (20010905)  
PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-006/60A;  
D01F-006/60B; D01F-006/80B; D01F-008/12B; D01F-008/14B; D03D-015/00B;  
D06M-011/38B; D06M-101/34B

4/3,K/10 (Item 8 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
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138025378 CA: 138(3)25378k PATENT  
**Abrasion-resistant polyamide compositions for sliding parts**  
INVENTOR(AUTHOR): Masuda, Haruhisa; Oka, Hideaki; Sasaki, Shigeru  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2002363404 A2 DATE: 20021218  
APPLICATION: JP 2001178280 (20010613)  
PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08G-069/26B; C08J-005/16B; C08K-003/00B; C08K-007/00B; C08L-101/00B

4/3,K/11 (Item 9 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
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137312299 CA: 137(21)312299v PATENT  
**Electrically conductive polyamide composite fibers useful for brushes for office automation equipments**  
INVENTOR(AUTHOR): Yamakawa, Itsuki; Tanaka, Kazuhiko; Kawamoto, Masao; Takemura, Osamu  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2002309449 A2 DATE: 20021023  
APPLICATION: JP 2001113343 (20010412)  
PAGES: 10 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-008/12A;  
D01F-006/90B; D03D-015/00B; D04B-001/16B; D04B-021/00B; D04H-001/42B;  
G03G-015/02B; G03G-021/06B; G03G-021/10B

4/3,K/12 (Item 10 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
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137295684 CA: 137(20)295684x PATENT  
**Fire-resistant polyamide compositions with good appearance**  
INVENTOR(AUTHOR): Matsuoka, Shuji; Oka, Hideaki; Sasaki, Shigeru  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2002309083 A2 DATE: 20021023  
APPLICATION: JP 2001111159 (20010410)  
PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08G-069/26B; C08J-005/00B; C08K-003/00B; C08K-005/00B; C08K-005/02B;  
C08L-077/06B; C08L-023/00B

4/3,K/13 (Item 11 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)

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**137280444 CA: 137(19)280444v PATENT**

**Polyamide compositions with good sliding property and their moldings**

INVENTOR(AUTHOR): Oka, Hideaki; Sasaki, Shigeru

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2002302605 A2 DATE: 20021018

APPLICATION: JP 2001105765 (20010404)

PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08J-005/00B; C08K-003/00B; C08K-005/00B; C08L-077/06B; C08L-027/12B;  
C08L-029/10B

**4/3,K/14 (Item 12 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

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**136388479 CA: 136(25)388479d PATENT**

**Polyamide fiber-based separators, their manufacture, and secondary batteries using them**

INVENTOR(AUTHOR): Yorimitsu, Shuhei; Katayama, Takashi

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2002151041 A2 DATE: 20020524

APPLICATION: JP 2000346458 (20001114)

PAGES: 10 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: H01M-002/16A;  
H01M-010/28B

**4/3,K/15 (Item 13 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

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**136217942 CA: 136(14)217942v PATENT**

**Component-separable conjugate fibers for manufacture of nonwoven fabrics with good component separability in hot water comprising conjugate fibers consisting two noncompatible polymer components having one component containing small quantity of dispersed thermoplastic poly(vinyl alcohols) and manufacture of fiber sheets therefrom**

INVENTOR(AUTHOR): Oshita, Tatsuya; Takaoka, Nobuo

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 200261027 A2 DATE: 20020228

APPLICATION: JP 2000240970 (20000809)

PAGES: 12 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-008/10A;  
D01F-008/14B; D04H-001/46B; D06N-003/14B

**4/3,K/16 (Item 14 from file: 399)**

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

**136038264 CA: 136(3)38264d PATENT**

**Manufacture of polyamides with improved heat resistance, mechanical properties, and dimensional stability**

INVENTOR(AUTHOR): Tamura, Kozo; Hara, Tetsuya; Utsumi, Naohiko; Watanabe, Kazunori; Matsunaga, Susumu



Search Report from Ginger R. DeMille

LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2001348427 A2 DATE: 20011218  
APPLICATION: JP 2000173684 (20000609)  
PAGES: 9 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08G-069/30A

4/3,K/17 (Item 15 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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134282055 CA: 134(20)282055f PATENT

Electrically-conductive composite polyamide fiber

INVENTOR(AUTHOR): Tanaka, Kazuhiko; Hokimoto, Akihiro; Matsuo, Yoshiteru;  
Kawamoto, Masao

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: European Pat. Appl. ; EP 1091026 A1 DATE: 20010411

APPLICATION: EP 2000121038 (20000927) \*JP 99285464 (19991006)

PAGES: 20 pp. CODEN: EPXXDW LANGUAGE: English CLASS: D01F-001/09A;

D01F-008/12B DESIGNATED COUNTRIES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT;  
LI; LU; NL; SE; MC; RT; IE; SI; LT; LV; FI; RO

4/3,K/18 (Item 16 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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134179861 CA: 134(13)179861s PATENT

Electrically conductive polyamide composite fibers

INVENTOR(AUTHOR): Tanaka, Kazuhiko; Nakatsuka, Hitoshi; Hokimoto, Akihiro  
; Yoneyama, Masayuki; Kawamoto, Masao

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 200149532 A2 DATE: 20010220

APPLICATION: JP 99219787 (19990803)

PAGES: 9 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-008/12A

4/3,K/19 (Item 17 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

134087539 CA: 134(7)87539q PATENT

Segmented conjugated fibers with good bulk, density, flexibility and  
dyeability

INVENTOR(AUTHOR): Nakatsuka, Hitoshi; Tanaka, Kazuhiko; Inoue, Ichiro;  
Hara, Tetsuya

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 200103228 A2 DATE: 20010109

APPLICATION: JP 99177575 (19990624)

PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-008/14A;  
D01F-008/12B; D02G-001/02B; D02G-003/04B; D02G-003/38B

4/3,K/20 (Item 18 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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133297121 CA: 133(21)297121c PATENT

Polyamide compositions containing brominated styrene polymers having good fire and heat resistance, low water absorption and dimensional stability for moldings

INVENTOR(AUTHOR): Utsunomiya, Takeshi; Suzuki, Hideaki; Oka, Hideaki; Kuki, Toru

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2000281899 A2 DATE: 20001010

APPLICATION: JP 99332629 (19991124) \*JP 9915453 (19990125)

PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A; C08L-025/18B

4/3,K/21 (Item 19 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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133121414 CA: 133(9)121414m PATENT

Polyamide compositions containing plate inorganic fillers and their moldings with good strength, dimensional stability and heat resistance

INVENTOR(AUTHOR): Tamura, Kozo; Oka, Hideaki

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2000212437 A2 DATE: 20000802

APPLICATION: JP 9919729 (19990128)

PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A; C08K-003/00B; C08G-069/26B

4/3,K/22 (Item 20 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

133121368 CA: 133(9)121368z PATENT

Polyamide compositions with excellent heat, water, and chemical resistance and their moldings

INVENTOR(AUTHOR): Takamoto, Katsunori; Oka, Hideaki

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2000204239 A2 DATE: 20000725

APPLICATION: JP 992562 (19990108)

PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/00A; C08L-077/06B

4/3,K/23 (Item 21 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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133105983 CA: 133(8)105983r PATENT

Polyamide compositions and lightweight rigid wire harness connectors therefrom

INVENTOR(AUTHOR): Tamura, Kozo; Oka, Hideaki

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2000198922 A2 DATE: 20000718

Search Report from Ginger R. DeMille

APPLICATION: JP 99299 (19990105)  
PAGES: 11 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08K-003/00B; C08K-003/10B; C08K-003/16B; C08K-005/00B; C08K-005/098B;  
H01R-013/46B

4/3,K/24 (Item 22 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

133090435 CA: 133(7)90435n PATENT  
Polyamide compositions for sliding parts  
INVENTOR(AUTHOR): Matsuoka, Shuji; Oka, Hideaki; Takamoto, Katsunori  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2000191905 A2 DATE: 20000711  
APPLICATION: JP 98367861 (19981224)  
PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08K-007/08B

4/3,K/25 (Item 23 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

133074818 CA: 133(6)74818j PATENT  
Polyamide compositions containing organohalogen compounds with excellent  
fire resistance  
INVENTOR(AUTHOR): Utsunomiya, Takeshi; Takamoto, Katsunori; Oka, Hideaki  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2000186205 A2 DATE: 20000704  
APPLICATION: JP 98364653 (19981222)  
PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08K-005/134B; C08K-005/36B; C08L-077/06B; C08L-025/04B

4/3,K/26 (Item 24 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

133074504 CA: 133(6)74504d PATENT  
Manufacture of semiaromatic polyamides with excellent color tone  
INVENTOR(AUTHOR): Oka, Hideaki; Tamura, Kozo  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2000186142 A2 DATE: 20000704  
APPLICATION: JP 98362392 (19981221)  
PAGES: 8 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08G-069/28A

4/3,K/27 (Item 25 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

133044597 CA: 133(4)44597u PATENT  
Semiaromatic polyamide sheets with excellent heat, chemical, and water  
resistance

Search Report from Ginger R. DeMille

INVENTOR(AUTHOR): Oka, Hideaki; Tamura, Kozo  
LOCATION: Japan, ~~U.S.~~  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 2000178368 A2 DATE: 20000627  
APPLICATION: JP 98362060 (19981221)  
PAGES: 6 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08J-005/18A;  
C08G-069/26B; C08L-077/06B

4/3,K/28 (Item 26 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

132065361 CA: 132(6)65361g PATENT  
**Component-separable synthetic conjugate fibers having .gtoreq.2 components from thermoplastic polyamides, poly(phenylene sulfide) and poly(methylpentenes) with improved resistant to heat and chemicals**  
INVENTOR(AUTHOR): Katayama, Takashi; Nakagawa, Masahiro  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 200017524 A2 DATE: 20000118  
APPLICATION: JP 98177913 (19980625)  
PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-008/12A;  
D01F-008/06B; D01F-008/16B

4/3,K/29 (Item 27 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

131019736 CA: 131(2)19736g PATENT  
**Production method of polyamide composition**  
INVENTOR(AUTHOR): Oka, Hideaki; Sugo, Nozomu; Tamura, Kozo; Kashimura, Tsugifumi  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 99140309 A2 ; JP 11140309 DATE: 19990525  
APPLICATION: JP 97311934 (19971113)  
PAGES: 7 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A;  
C08K-003/16B

4/3,K/30 (Item 28 from file: 399)  
DIALOG(R) File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

130111260 CA: 130(9)111260g PATENT  
**Semiaromatic ultrafine polyamide fiber sheets containing elastic polymers for leather substitutes with improved dimensional stability in the wet state and good dyeing fastness**  
INVENTOR(AUTHOR): Katayama, Takashi; Nakagawa, Masahiro; Oka, Hideaki; Tamura, Kozo; Kashimura, Tsugifumi; Fujisawa, Michinori; Yamazaki, Takeshi  
LOCATION: Japan,  
ASSIGNEE: Kuraray Co., Ltd.  
PATENT: Japan Kokai Tokkyo Koho ; JP 98331076 A2 ; JP 10331076 DATE: 19981215  
APPLICATION: JP 97143751 (19970602)

Search Report from Ginger R. DeMille

PAGES: 11 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D06N-003/12A

4/3,K/31 (Item 29 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

127294554 CA: 127(21)294554m PATENT

Polyamide fibers with good hydrophilicity and resistance to alkali and acid

INVENTOR(AUTHOR): Katayama, Takashi; Nakagawa, Junyo

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 97256219 A2 ; JP 09256219 DATE: 19970930

APPLICATION: JP 9662558 (19960319)

PAGES: 6 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: D01F-006/80A; B01D-039/04B; D01F-006/60B; D21H-013/26B; H01M-002/16B

4/3,K/32 (Item 30 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

126186913 CA: 126(14)186913y PATENT

Polyamides and their molding compositions with excellent processability

INVENTOR(AUTHOR): Oka, Hideaki; Sugo, Nozomi; Tamura, Kozo; Kashiwamura, Tsugifumi

LOCATION: Japan,

ASSIGNEE: Kuraray Co

PATENT: Japan Kokai Tokkyo Koho ; JP 9712713 A2 ; JP 0912713 DATE: 19970114

APPLICATION: JP 95159308 (19950626)

PAGES: 9 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08G-069/26A; C08K-003/00B; C08K-005/00B; C08L-077/06B

4/3,K/33 (Item 31 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

123257891 CA: 123(20)257891r PATENT

Terephthalic acid-nonanediamine (or methyloctanediamine) polyamide compositions in manuf. of engineering plastics.

INVENTOR(AUTHOR): Oka, Hideaki; Kashimura, Tsugunori; Yokota, Shinichi; Hayashihara, Hiroshi

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: European Pat. Appl. ; EP 659799 A2 DATE: 950628

APPLICATION: EP 94120607 (941223) \*JP 93328109 (931224) \*JP 9419584 (940216) \*JP 9419585 (940216)

PAGES: 19 pp. CODEN: EPXXDW LANGUAGE: English CLASS: C08G-069/26A

DESIGNATED COUNTRIES: BE; DE; FR; GB; IT; NL; SE

4/3,K/34 (Item 32 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

Search Report from Ginger R. DeMille

103088958 CA: 103(12)88958x JOURNAL

Making a new C10 diamine

AUTHOR(S): Drake, C. A.; Campbell, R. W.; Hill, H. W.; Vanderveen, J. W.;  
Marwil, S. J.

LOCATION: Phillips Pet. Res. Dev., Bartlesville, OK, 74004, USA

JOURNAL: CHEMTECH DATE: 1985 VOLUME: 15 NUMBER: 5 PAGES: 308-15

CODEN: CHTEDD ISSN: 0009-2703 LANGUAGE: English

4/3,K/35 (Item 33 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

98035913 CA: 98(6)35913a JOURNAL

A new C10 diamine petrochemical intermediate

AUTHOR(S): Drake, C. A.; Campbell, R. W.; Will, H. W.; Vanderveen, J. W.;  
Marwil, S. J.

LOCATION: Phillips Pet. Co., Bartlesville, OK, 74004, USA

JOURNAL: Chem. Eng. Prog. DATE: 1982 VOLUME: 78 NUMBER: 12 PAGES:

83-4 CODEN: CEPRA8 ISSN: 0009-2495 LANGUAGE: English

4/3,K/36 (Item 1 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005387442

Derwent Accession: 2004-055096

Process for producing diamines

Inventor: Tokuda, Yoshihiro, INV

Suzuki, Shigeaki, INV

Assignee: Kuraray Co., Ltd. (03), Kurashiki-shi, JP

Correspondence Address: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.,  
1940 DUKE STREET, ALEXANDRIA, VA, 22314, US

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 20030187303	A1	20031002	US 2003377828	20030304
Priority				JP 200287552	20020327

Fulltext Word Count: 11263

Summary of the Invention:

...dialdehyde used. Examples of the diamine are linear aliphatic diamines, e.g. butanediamine, hexanediamine, octanediamine, **nonanediamine**, decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2- **methyloctanediamine**, 2- **methylnonanediamine** and 2,7- **dimethyloctanediamine**; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...

4/3,K/37 (Item 2 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2004 The Dialog Corp. All rts. reserv.

1225-Aug-0408:47 AM

Search Report from Ginger R. DeMille

4221229

Derwent Accession: 1998-585686

Utility

C/ Process for producing diamines

; REACTING A DIALDEHYDE WITH AMMONIA AND HYDROGEN IN THE PRESENCE OF A HYDROGENATION CATALYST TO PRODUCE THE CORRESPONDING DIAMINE, WHEREIN A SOLVENT COMPRISING AN ALCOHOL IS USED IN THE REACTION AND THE CONCENTRATION OF WATER IN THE

Inventor: Nagareda, Katsushi, Okayama-ken, JP

Tokuda, Yoshihiro, Okayama-ken, JP

Suzuki, Shigeaki, Osaka, JP

Assignee: Kuraray Co., Ltd. (03), Kurashiki, JP

Kuraray Co Ltd JP (Code: 47174)

Examiner: Burn, Brian M. (Art Unit: 161)

Law Firm: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 5978208	A	19991026	US 9878502	19980514
Priority				JP 97123867	19970514

Fulltext Word Count: 6059

Description of the Invention:

...starting material dialdehydes, there are obtained, correspondingly, linear aliphatic diamines, e.g., butanediamine, hexanediamine, octanediamine, **nonanediamine**, decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g., 2-**methyloctanediamine**, 2-**methylnonanediamine** and 2,7-**dimethyloctanediamine**; alicyclic diamines, e.g., 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...revealed that 36.5 g of a 80/20 (by moles) mixture of 1,9- **nonanediamine** and 1,8-octanediamine and 0.2 g of byproduced amines having hydroxyl group on...revealed that the crude product containing 17.5 g of a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine, which indicates that the total yield of the diamines...

?

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? show files;ds

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200454

(c) 2004 Thomson Derwent

File 344:Chinese Patents Abs Aug 1985-2004/May

(c) 2004 European Patent Office

File 347:JAPIO Nov 1976-2004/Apr(Updated 040802)

(c) 2004 JPO & JAPIO

File 371:French Patents 1961-2002/BOPI 200209

(c) 2002 INPI. All rts. reserv.

File 348:EUROPEAN PATENTS 1978-2004/Aug W03

(c) 2004 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20040819,UT=20040812

(c) 2004 WIPO/Univentio

Set	Items	Description
S1	2472458	JOINT? ? OR CONNECTOR? ? OR CONNECTER? ? OR JOINER? ? OR - RING? ? OR COUPLING OR CONNEXION OR CONNECTIVE OR BRIDGE? ?
S2	184	NONANEDIAMINE OR NON()ANEDIAMINE
S3	5	METHYL(T)OCTANEDIAMINE
S4	0	S1 AND S2 AND S3
S5	2	S2 AND S3

? t5/3,k/all

5/3,K/1 (Item 1 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

01637584

**Process for producing diamines from dialdehydes**

**Verfahren zur Herstellung von Diaminen aus Dialdehyden**

**Procede de preparation de diamines a partir de dialdehydes**

PATENT ASSIGNEE:

Kuraray Co., Ltd., (2727591), 1621, Sakazu, Kurashiki-shi, Okayama  
710-8622, (JP), (Applicant designated States: all)

INVENTOR:

Tokuda, Yoshihiro, c/o Kuraray Co. Ltd., 2045-1, Sakazu, Kurashiki-shi,  
Okayama 710-0801, (JP)

Suzuki, Shigeaki, c/o Kuraray Co. Ltd., 12-39, Umeda 1-chome, Kita-ku,  
Osaka-shi, Osaka 530-8611, (JP)

LEGAL REPRESENTATIVE:

Tanner, James Percival et al (55353), D. Young & Co, 21 New Fetter Lane,  
London EC4A 1DA, (GB)

PATENT (CC, No, Kind, Date): EP 1348688 A1 031001 (Basic)

APPLICATION (CC, No, Date): EP 2003251898 030326;

PRIORITY (CC, No, Date): JP 200287552 020327

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;  
HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: C07C-209/26; C07C-211/09

ABSTRACT WORD COUNT: 135

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200340	671
SPEC A	(English)	200340	8244
Total word count - document A			8915
Total word count - document B			0
Total word count - documents A + B			8915



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- ...SPECIFICATION 1-butanol, methanol, 2-propanol, tetrahydrofuran or 1,4-dioxane, a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine in a yield of 92.6%, 93.5%, 89...
- ...solvent of methanol, by addition of an amine such as triethylamine, mixtures of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine in a maximum yield of 95%.
- (6) Japanese Patent...
- ...solvent of n-butanol, isopropyl alcohol or n-octyl alcohol, a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine at a yield of 90.5%, 92.0% or...
- ...on Kieselguhr and a solvent of n-butanol, to yield a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine at a yield of 97%. Still another example started...
- ...of a solvent of n-butanol, methanol or isoamyl alcohol, a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine in a yield of 96%, 95% or 95%, respectively...dialdehyde used. Examples of the diamine are linear aliphatic diamines, e.g. butanediamine, hexanediamine, octanediamine, **nonanediamine**, decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2-**methyloctanediamine**, 2-**methylnonanediamine** and 2,7-**dimethyloctanediamine**; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...derived by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine.. Methanol distillates were recovered from the crude reaction mixture...
- ...the bottoms after the distillation, it was found that 12.7 g of 1,9- **nonanediamine** (yield: 93%) and 4.9 g of 2-methyl-1,8-octanediamine (yield: 93%) had...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine. The solvent was recovered, in the same manner as...
- ...recovered. Analysis of the bottoms after the distillation showed that the yields of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 92%, respectively.
- In this second run...
- ...that it contained 0.24 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 91%, respectively. No trace of N...
- ...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine was detected.
- In this third run of repeated reaction...
- ...that it contained 0.32 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 92%, respectively. On this occasion, N...
- ...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine was detected in an amount of 0.02 mole...that it contained 0.35 g of ethylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were

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91% and 90%, respectively. On this occasion, no...

...formed by introduction of ethyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine was detected.  
In this third run of repeated reaction...

...that it contained 0.46 g of ethylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 91% and 91%, respectively. On this occasion, N...

...formed by introduction of ethyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.03 mole...

...that it contained 0.31 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 92%, respectively. On this occasion, no...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine was detected.

In this third run of repeated reaction...that it contained 0.30 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 90% and 90%, respectively. On this occasion, N...

...formed by introduction of methyl group into one of the nitrogen atoms of 1, 9- **nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.10 mole...

...that it contained 0.24 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 92%, respectively. On this occasion, no...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine was detected.  
In this third run of repeated reaction...

...that it contained 0.34 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 91% and 91%, respectively. On this occasion, N...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.05 mole...

...that it contained 0.22 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 90% and 90%, respectively. On this occasion, no...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine was detected.

In this third run of repeated reaction...that it contained 0.30 g of methylamine. The yields of the obtained 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 92%, respectively. On this occasion, N...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9- **nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.03 mole...

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...that it contained 0.24 g of methylamine. The yields of the obtained 1,9-**nonanediamine** and 2-methyl-1,8-octanediamine were 91% and 91%, respectively. On this occasion, no...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9-**nonanediamine** or 2-methyl-1,8-octanediamine was detected.

In this third run of repeated reaction...

...that it contained 0.34 g of methylamine. The yields of the obtained 1,9-**nonanediamine** and 2-methyl-1,8-octanediamine were 91% and 91%, respectively. On this occasion, N...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9-**nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.03 mole...

...that it contained 0.24 g of methylamine. The yields of the obtained 1,9-**nonanediamine** and 2-methyl-1,8-octanediamine were 90% and 90%, respectively. On this occasion, no...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9-**nonanediamine** or 2-methyl-1,8-octanediamine was detected.

In this third run of repeated reaction ...that it contained 0.32 g of methylamine. The yields of the obtained 1,9-**nonanediamine** and 2-methyl-1,8-octanediamine were 91% and 91%, respectively. On this occasion, N...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9-**nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.02 mole...

...that it contained 0.24 g of methylamine. The yields of the obtained 1,9-**nonanediamine** and 2-methyl-1,8-octanediamine were 90% and 90%, respectively. On this occasion, no...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9-**nonanediamine** or 2-methyl-1,8-octanediamine was detected.

In this third run of repeated reaction...

...that it contained 0.34 g of methylamine. The yields of the obtained 1,9-**nonanediamine** and 2-methyl-1,8-octanediamine were 92% and 92%, respectively. On this occasion, N...

...formed by introduction of methyl group into one of the nitrogen atoms of 1,9-**nonanediamine** or 2-methyl-1,8-octanediamine were detected in an amount of 0.03 mole...

5/3,K/2 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00968362

Process for producing diamines from dialdehydes

Verfahren zur Herstellung von Diamines aus Dialdehyden

Procede de preparation de diamines a partir de dialdehydes

PATENT ASSIGNEE:

Kuraray Co., Ltd., (298715), 1621 Sakazu, Kurashiki-City, Okayama

710-8622, (JP), (Proprietor designated states: all)

INVENTOR:

Search Report from Ginger R. DeMille

Nagareda, Katsushi, c/o Kuraray Co., Ltd., 2045-1, Sakazu, Kurashiki-shi, Okayama-ken, 710-2801, (JP)  
Tokuda, Yoshihiro, c/o Kuraray Co., Ltd., 2045-1, Sakazu, Kurashiki-shi, Okayama-ken, 710-2801, (JP)  
Suzuki, Shigeaki, c/o Kuraray Co., Ltd., 12-39, Umeda 1-chome, Kita-ku, Osaka-shi, 530-8611, (JP)

LEGAL REPRESENTATIVE:

Muller-Bore & Partner Patentanwalte (100651), Grafinger Strasse 2, 81671 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 878462 A1 981118 (Basic)  
EP 878462 B1 010919

APPLICATION (CC, No, Date): EP 98108729 980513;

PRIORITY (CC, No, Date): JP 97123867 970514

DESIGNATED STATES: CH; DE; FR; GB; IT; LI; NL

INTERNATIONAL PATENT CLASS: C07C-209/26

ABSTRACT WORD COUNT: 75

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199847	138
CLAIMS B	(English)	200138	145
CLAIMS B	(German)	200138	141
CLAIMS B	(French)	200138	159
SPEC A	(English)	199847	4689
SPEC B	(English)	200138	4793
Total word count - document A			4828
Total word count - document B			5238
Total word count - documents A + B			10066

...SPECIFICATION starting material dialdehydes, there are obtained, correspondingly, linear aliphatic diamines, e.g. butanediamine, hexanediamine, octanodiamine, **nonanediamine**, decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2- **methyloctanediamine** , 2- **methylnonanediamine** and 2,7- **dimethyloctanediamine** ; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...was obtained 36.5 g of a 80/20 (by moles) mixture of 1,9- **nonanediamine** and 1,8-octanediamine and 0.2 g of byproduced amines having hydroxyl group on...chromatography revealed a crude product containing 17.5 g of a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine, which indicates that the total yield of the diamines...chromatography revealed that there was obtained 35.6 g of a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine. The yield of the obtained diamines based on the...

...SPECIFICATION starting material dialdehydes, there are obtained, correspondingly, linear aliphatic diamines, e.g. butanediamine, hexanediamine, octanediamine, **nonanediamine** , decanediamine, undecanediamine, dodecanediamine, tetradecanediamine, hexadecanediamine, octadecanediamine and eicosanediamine; branched aliphatic diamines, e.g. 2- **methyloctanediamine** , 2- **methylnonanediamine** and 2,7- **dimethyloctanediamine** ; alicyclic diamines, e.g. 1,3-cyclohexanedimethanamine, 1,4-cyclohexanedimethanamine, 3(4),8(9)-tricyclo...chromatography revealed a crude product containing 17.5 g of a mixture of 1,9- **nonanediamine** and 2-methyl-1,8-octanediamine, which indicates that the total yield of the diamines...chromatography revealed that there was obtained 35.6 g of a

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mixture of 1,9- nonanediamine and 2-methyl-1,8-octanediamine. The yield  
of the obtained diamines based on the...  
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Set	Items	Description
S1	10676325	JOINT? ? OR CONNECTOR? ? OR CONNECTER? ? OR JOINER? ? OR - RING? ? OR COUPLING OR CONNEXION OR CONNECTIVE OR BRIDGE? ?
S2	1001	NONANEDIAMINE OR NON()ANEDIAMINE
S3	77	METHYL(T)OCTANEDIAMINE
S4	1	S1 AND S2 AND S3
S5	54	S2 AND S3
S6	1	S1 AND S5
S7	1	S5 AND (CABLE? ? OR CABLING)
S8	0	S7 NOT S6
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4/5/1 (Item 1 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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~~X~~ 133105983 CA: 133(8)105983r PATENT

Polyamide compositions and lightweight rigid wire harness connectors therefrom

INVENTOR(AUTHOR): Tamura, Kozo; Oka, Hideaki

LOCATION: Japan,

ASSIGNEE: Kuraray Co., Ltd.

PATENT: Japan Kokai Tokkyo Koho ; JP 2000198922 A2 DATE: 20000718

APPLICATION: JP 99299 (19990105)

PAGES: 11 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: C08L-077/06A; C08K-003/00B; C08K-003/10B; C08K-003/16B; C08K-005/00B; C08K-005/098B; H01R-013/46B

SECTION:

CA238003 Plastics Fabrication and Uses

IDENTIFIERS: impact resistance semiarom polyamide automotive part, nonanediamine methyloctanediamine polyamide wire harness connector, alc resistance talc copper iodide polyamide

DESCRIPTORS:

Electric cables...

automotive; semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

Impact-resistant materials...

chem. resistant; semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

Electric contacts...

connectors; semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

Chemically resistant materials...

impact-resistant; semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

Crystal nucleating agents... Glass fibers,uses... Heat stabilizers...

Polyamides,uses... Water-resistant materials...

semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

CAS REGISTRY NUMBERS:

1335-23-5 23128-74-7 24938-10-1P 24938-73-6P 153550-59-5 169284-22-4P  
semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

14807-96-6 uses, nucleating agent; semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

7681-11-0 uses, semiarom. polyamide compns. for wire harness connectors with good impact, alc., and water resistance

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=> d his

(FILE 'HOME' ENTERED AT 12:32:49 ON 25 AUG 2004)

FILE 'AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUALINE, AQUIRE, BABS, BIOCOMMERCE, BIOTECHNO, CABA, CAOLD, CAPLUS, CBNB, CEABA-VTB, CEN, CERAB, CIN, COMPENDEX, CONFSCI, COPPERLIT, CORROSION, DISSABS, FEDRIP, GENBANK, INSPEC, INSPHYS, INVESTEXT, IPA, ...' ENTERED AT 12:36:03 ON 25 AUG 2004

L1 153 S (NONANEDIAMINE OR NON()ANEDIAMINE) AND METHYL(L)OCTANEDIAMINE  
L2 148 DUPLICATE REMOVE L1 (5 DUPLICATES REMOVED)  
L3 117 S L2 NOT PY>2003

FILE 'REGISTRY' ENTERED AT 12:45:34 ON 25 AUG 2004

L4 1 S 646-24-2/RN

FILE 'HSDB' ENTERED AT 12:45:36 ON 25 AUG 2004

L5 0 S L4 AND SAFE/FA  
SET NOTICE 1 DISPLAY  
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FILE 'REGISTRY' ENTERED AT 12:45:50 ON 25 AUG 2004

FILE 'HSDB' ENTERED AT 12:45:59 ON 25 AUG 2004

FILE 'REGISTRY' ENTERED AT 12:49:13 ON 25 AUG 2004

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FILE 'REGISTRY' ENTERED AT 12:50:13 ON 25 AUG 2004

L6 1 S 148528-05-6/RN  
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L7 19 S 148528-05-6/RN AND 646-24-2/RN

=> d ti,py,ab 1-19

L7 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Filter with good chemical resistance, heat resistance and hydrophilicity  
PY 2004

AB The filter contains core/sheath conjugated fibers containing polyamide sheath component synthesized from terephthalic acid-based dicarboxylic acid and 1,9-nonanediamine- and 2-methyl-1,8-octanediamine-based diamine, and polypropylene core component. Filtration apparatus using the above stated filter is described. The filter is suitable for air filter, liquid filter, bag filter, microfiltration filter, etc.

L7 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Filter with good chemical resistance, heat resistance and hydrophilicity  
PY 2004

AB The filter contains core/sheath conjugated fibers containing polyamide sheath component synthesized from terephthalic acid-based dicarboxylic acid and 1,9-nonanediamine- and 2-methyl-1,8-octanediamine-based diamine, and polyethylene terephthalate core component. Filtration apparatus using the above stated filter is described. The filter is suitable for air filter, liquid filter, bag filter, microfiltration filter, etc.

L7 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Separators for capacitors

PY 2004

AB The separators contain polymers with thermal decomposition temperature of  $\geq 250^\circ$ , which contain polyamides comprising aromatic dicarboxylic acid components  $\geq 60$  mol %, and C6-12 aliphatic alkylenediamine  $\geq 60$  mol %, and have H<sub>2</sub>O retention rate of  $\geq 190$  %,  $\geq 150$  % and  $\geq 120$  %, when separator d. is, resp.,  $< 0.50$  g/cm<sup>3</sup>,  $0.50$ - $0.60$  g/cm<sup>3</sup> and  $\geq 0.60$  g/cm<sup>3</sup>. The separators have low internal resistance and long life.

L7 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Resin composition for light emitting diode reflectors

PY 2003

AB A resin composition useful in the production of light-emitting diode reflectors is provided, which can suppress delamination or bubbling in epoxy bonding or epoxy sealing even when preliminary drying such as heating is not carried out. The resin composition is characterized in that it comprises polyamides 100 and inorg. fillers 1-200 weight parts, where the polyamides comprise diamine units consisting of 50-100 mol % of 1,9-diaminononane and 0-50 mol % of a linear aliphatic diamine having 6-12 C atoms and/or an aliphatic diamine having a C6-12 side chain and dicarboxylic acid units consisting of 60-100 mol % of terephthalic acid and 0-40 mol % of an aromatic dicarboxylic acid except terephthalic acid and/or an aliphatic dicarboxylic acid having 4-20 C atoms.

L7 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Reductive amination process and catalysts for producing diamines from dialdehydes and ammonia in the presence of alkanols

PY 2003

2004

2003

2003

2004

2003

AB A process for producing diamines which comprises the steps of: (1) reacting a dialdehyde (e.g., 1,6-hexanedial) with ammonia and hydrogen in the presence of an alc. (e.g., methanol) and a reductive amination catalyst (e.g., Ni/kieselgurh) to synthesize the corresponding diamine (e.g., 1,6-diaminohexane); (2) separating and recovering the alc. by distilling the reaction mixture obtained from step (1); (3) separating the diamine by purifying the distillation residue obtained from (2); and (4) feeding at least part of the alc. recovered in step (2) to step (1); where step (1) comprising maintaining the amount of ammonia at a level of at least 200 mol per mol of the primary amine that has formed in the step (1) and accumulated in the reaction vessel for step (1). The process can produce diamines com. advantageously and in high yields, the diamines having little impurities.

L7 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Preparation of diamines from dialdehydes

PY 2003

AB Diamines are prepared by reaction of dialdehydes or their derivs. with NH<sub>3</sub> and H in the presence of Ni (compound)-containing Ru catalysts on supports. A mixture of 1,9-nonanedial and 2-methyl-1,8-octanedial was treated with NH<sub>3</sub> and H in THF using Ru-Ni/TiO<sub>2</sub> catalyst at  $140^\circ$  under 8.5 MPa for 1 h to give 98% (in total) 1,9-nonanediamine and 2-methyl-1,8-octanediamine.

L7 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Manufacture of diamines

PY 2002  
 AB Diamines are manufactured by the reaction of dialdehydes with ammonia and hydrogen in a solvent in the presence of inorg. oxide-supported nickel catalyst, where the inorg. oxide has the total volume of fine cavities of <1  $\mu\text{m}$  diameter >1.0 mL/g.

L7 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Preparation of primary amines  
 PY 1999  
 AB Title compds. are prepared by liquid-phase reductive amination of aldehydes or ketones in the presence of  $\text{NH}_3$ , H, and homogeneous hydrogenation catalysts containing  $\geq 1$  metal chosen from Fe, Ni, Ru, Rh, Pd, Os, Ir, and Pt. 1-Octanal was reacted in the presence of  $\text{NH}_3$ , H, and a catalyst solution prepared from ruthenium acetylacetonate, hexylamine, and 2,2'-bipyridine at  $150^\circ$  for 1 h to give 92% octylamine.

L7 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Resin composition with improved physical properties as magnetic material  
 PY 1999  
 AB The composition comprises 100 polyamide made of dicarboxylic acid unit containing 60-100 mol.% terephthalic acid, and diamine unit containing 60-100 mol.% C6-18 aliphatic. diamine; and 50-2000 weight parts ferrite powders.

L7 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Reaction method and loop-type reactor using slurried catalyst  
 PY 1999  
 AB The reactor has an inlet for a liquid material, an outlet for withdrawing the reaction mixture, a bump for circulating the mixture, and filtering unit, where the mixture is circulated at a linear speed 1-10 m/s, the filtering unit has pore size 0.01-1.0  $\mu\text{m}$  and the catalyst is filtered away from the mixture by a cross-flow method. Example of liquid material was 1,9-nonanedial or/and 2-methyl-1,8-octanedial.

L7 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Preparation of diamines  
 PY 1999  
 AB Title compds. are prepared by reductive amination of dialdehydes in the presence of hydrogenation catalysts, H, and  $\text{NH}_3$  and distillation of reaction mixts. containing diamines with primary monoamines and/or hydroxylamines capable of distillation-separation from diamines. 1,9-Nonanedial and 2-methyl-1,8-octanedial were aminated with  $\text{NH}_3$  in the presence of Raney Ni in MeOH at  $120^\circ$  under 40 kg/cm<sup>2</sup> H for 3 h to give 36.9% 1,9-nonanediamine and 2-methyl-1,8-octanediamine, which were distilled with hexadecylamine at bottom temperature  $180^\circ$  under 10 torr to give 1,9-nonanediamine and 2-methyl-1,8-octanediamine with 104.1% recovery.

L7 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Preparation of alkanediamines  
 PY 1999  
 AB Diamines are prepared by reductive amination of dialdehydes with H and  $\text{NH}_3$  and/or amines in the presence of hydrogenation catalysts and distillation of reaction mixts. with compds. having unshared electron pair-containing S. A mixture containing 1,9-nonanedial and 2-methyl-1,8-octanedial was aminated with Ni catalysts supported on diatomaceous earth in MeOH in the presence of  $\text{NH}_3$  and H and distilled in the presence of di-Ph sulfide to give 85% diamines with 99.9% purity.

L7 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Production of diamines from dialdehydes by reductive amination with control of the reaction water content for increased catalyst life  
 PY 1998

2001  
1999  
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1999

AB Diamines (e.g., 1,9-diaminononane) are prepared in high yield and selectivity by the reductive amination of dialdehydes (e.g., 1,9-nonanedial) with hydrogen and ammonia in an alc. solvent (e.g., 1-butanol) in the presence of a hydrogenation catalyst (e.g., nickel) while maintaining the water concentration in the reaction mixture at 5-15%. Maintaining the water concentration in the above range is shown to minimize catalyst deactivation.

L7 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Preparation of diamines by reductive amination of dialdehydes  
PY 1998

AB Diamines, useful as monomers for polyamides and polyurethanes (no data), are prepared by dissolving dialdehydes into C3-10 alc. solvents and supplying the solution to a reactor containing hydrogenation catalysts, the solvents, NH<sub>3</sub>, and H for reductive amination. A BuOH solution of 1,9-nonanedial and 2-methyl-1,8-octanedial was fed to a reactor containing Raney Ni, BuOH, and NH<sub>3</sub> under H at 120° under 40 kg/cm<sup>2</sup> over 5 h to give 90.5% mixture of 1,9-nonanediamine and 2-methyl-1,8-octanediamine.

L7 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Preparation of diamines from dialdehydes  
PY 1998

AB Diamines, useful as monomers for polyamides or polyurethanes (no data), are prepared by dissolving dialdehydes into lower alcs. in the presence of ≤4 mol% (to dialdehyde) amines (except for NH<sub>3</sub>) and feeding to a reactor containing hydrogenation catalysts, lower alcs., NH<sub>3</sub>, and H for reductive amination. Dialdehydes containing nonanedial and 2-methyloctanedial were mixed with NEt<sub>3</sub>, dissolved into MeOH, and reduced by H in the presence of Raney Ni and NH<sub>3</sub> at 120° under 40 atm for 2.5 h to give 92% diamines containing nonanediamine and 2-methyloctanediamine. No aminoacetal byproducts were observed in the products.

L7 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Apparatus for continuously reacting liquid raw material with solid catalyst  
PY 1998

AB The title apparatus comprises a reaction container and a pump for circulating a liquid reaction mixture (reactant and reaction product), whereas the apparatus is equipped with a liquid cyclone for separating the liquid reaction mixture from the solid catalyst. In operating the apparatus, a part of the reaction mixture is fed back to the reaction container and the other part is introduced to the liquid cyclone to discharge the liquid reaction mixture out of the system and to fed back the solid catalyst to the reactor container. The separated solid catalysts can be regenerated.

L7 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Preparation of primary diamines from primary dioximes  
PY 1998

AB R(CH<sub>2</sub>NH<sub>2</sub>)<sub>2</sub> (R = hydrocarbon residue) are prepared by hydrogenation of R(CH:NOH)<sub>2</sub> (R = same as above) in the presence of catalysts. A solution of 1,9-nonanedial dioxime in morpholine was hydrogenated in the presence of

Fe-Cr-modified Raney Ni and NaOH/MeOH solution at 100° and H 10 kg/cm<sup>2</sup> for 15 h to give 85.0% 1,9-nonanediamine.

L7 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Preparation of aliphatic diamines from aliphatic dialdehydes

PY 1995

AB Aliphatic diamines, useful as materials for nylon and polyurethanes and industrial chems., are prepared by treatment of aliphatic dialdehydes with NH<sub>3</sub> and H in solvents in the presence of Ni catalysts supported on inorg. oxides. A BuOH solution of 1,9-nonanedial and 2-methyl-1,8-octanedial was continuously introduced to a reactor containing NH<sub>3</sub> and diatomaceous earth (volume of 10-100 nm-diameter pore 0.19 mL/g) supporting Ni at 160° and 30 atm H for 40 min and the reaction mixture was further stirred under bubbling with H at 160° for 1 h to give 92.8% 1,9-nonanediamine and 92.0% 2-methyl-1,8-octanediamine, vs. average 66% for both diamines in a control reaction using Ni/diatomaceous earth with pore volume 0.05 mL/g.

L7 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

TI Preparation of diamines as materials for nylons and polyurethanes

PY 1993

2000

AB Alc. solns. of OHC(CH<sub>2</sub>)<sub>5</sub>ACHO (I; A = (CH<sub>2</sub>)<sub>n</sub>, CMe; n = 1, 2) are supplied to reaction systems, which are heated to appropriate temps. and contain hydrogenation catalysts, solvents, H, and NH<sub>3</sub>, and contact reduction is carried out to prepare H<sub>2</sub>NCH<sub>2</sub>(CH<sub>2</sub>)<sub>5</sub>ACH<sub>2</sub>NH<sub>2</sub> (A = same as I). 1, 9  
-Nonanedial and 2-methyl-1,8-octanedial in MeOH were supplied to an autoclave containing MeOH, Raney Ni, NH<sub>3</sub> and H at 120° and 40 kg/cm<sup>2</sup> for 3 h to give 91.6% 1,9-nonanediamine and 89.9% 2-methyl-1,8-octanediamine (sic).

=> d his

(FILE 'HOME' ENTERED AT 13:05:04 ON 25 AUG 2004)

FILE 'AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUALINE, AQUIRE, BABS, BIOCOMMERCE, BIOTECHNO, CABA, CAOLD, CAPLUS, CBNB, CEABA-VTB, CEN, CERAB, CIN, COMPENDEX, CONFSCI, COPPERLIT, CORROSION, DISSABS, FEDRIP, GENBANK, INSPEC, INSPHYS, INVESTEXT, IPA, ...' ENTERED AT 13:05:11 ON 25 AUG 2004

L1 153 S (NONANEDIAMINE OR NON()ANEDIAMINE) AND METHYL(L)OCTANEDIAMINE  
L2 5 S L1 AND (CONNECTOR OR CONNECTERS OR JOINT OR JOINTS OR CABLE

=> d ti,py,ab 1-5

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

TI Polyamide multilayer structure with excellent barrier properties and low-temperature impact resistance

PY 2004  
2004

AB A multilayer structure such as multilayer tube has excellent barrier properties against alc. gasoline such as hydrocarbon components, interlayer adhesion, low-temperature impact resistance, heat resistance, and chemical resistance. The multilayer structure comprises (a) a layer of Nylon 11 and/or Nylon 12 and (b) a layer of a polyamide (Nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60-100 mol% of the dicarboxylic acid component being a terephthalic acid and 60-100 mol% of the diamine component being 1,9-**nonanediamine** or 2-**methyl-1,8-octanediamine**, and (c) preferably a third layer consisting of Nylon 11 and/or Nylon 12 or Nylon 6.

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

TI Fuel-barrier polyamide **joints**, quick connectors, and their fuel piping parts

PY 2004

AB The **joint** comprises polyamides (nylon 9T) composed of dicarboxylic acids containing 60-100 mol% terephthalic acid (I) and diamines containing 60-100 mol% 1,9-**nonanediamine** (II) and 2-**methyl-1,8-octanediamine** (III). Preferably, the **joint** is composed of 50-99 parts of the polyamides and 1-50 parts of other polyamides and/or other thermoplastic resins. The quick **connector** has a cylindrical main body formed from the **joint** and is fused to a polyamide tube by spin fusing, vibrational fusing, laser fusing, or ultrasonic fusing. Thus, I-II-III-benzoic acid copolymer (molar reaction ratio 197.6:160:40:4.8) with m.p. 103° and limiting viscosity (H2SO4, 30°) 1.21 dL/g gave test pieces (ASTM standard) showing flexural modulus 2600 or 2500 MPa under dry or wet conditions, resp., notched Izod impact resistance 50 J/m, and elec. resistance 1015 Ω. A **joint** of the copolymer showed fuel (EtOH/gasoline blend) transmission 1.8 mg/day and amount of hydrocarbons contained in the transmitted fuels 0.1 mg/day, resp.

\* L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

TI Polyamides providing moldings with low water absorption

PY 2002

AB The polyamides consist of 95:5-0:100 diamine mixts. of 1,9-**nonanediamine** (I) and C9 branched saturated aliphatic diamine and 95:5-50:50 dicarboxylic acid mixts. of linear saturated aliphatic dicarboxylic acids and fatty acid dimers. The moldings of the polyamides and tubes and hoses having ≥1 layers made of the polyamides show enhanced impact strength, flexibility, transparency, and low water absorption. Thus, I 65.6, 2-**methyl-1,8-octanediamine** 754.4, dodecanedicarboxylic acid 1033, and polymerized fatty acid (Pripol 1009) 290.0 g were polymerized in the presence of H2PHO3 in N at 240° to give the

polyamide, which was molded to give test pieces showing haze 3%, water absorption 1.5%, and notched Izod impact strength 15 kg-cm/cm.

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

TI Lightweight polyamide blow moldings with excellent mechanical properties  
PY 2000

AB The moldings, useful for **pipes**, containers, and tanks, contain 100 parts polyamides with intrinsic viscosity (H<sub>2</sub>SO<sub>4</sub>, 30°) 0.4-3.0 dL/g, derived from dicarboxylic acids containing 60-100 mol% terephthalic acid (I) and diamines containing 60-100 mol% 1,9-**nonanediamine** (II) and/or 2-**methyl-1,8-octanediamine** and 5-100 parts polymers selected from carboxy- or epoxy-modified olefin or styrene polymers. Thus, a test piece comprising 100 parts I-II-benzoic acid copolymer and Himilan 1706 (ethylene-methacrylic acid copolymer Zn salt) showed impact strength 11 kJ/m<sup>2</sup>, heat distortion temperature 132°, and good hot water and chemical resistance.

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

TI Polyamide compositions and lightweight rigid wire harness connectors therefrom  
PY 2000

AB The compns. contain polyamides having dicarboxylic acid units based on 60-100 mol% terephthalic acid (I) and diamine units based on 60-100 mol% 1,9-**nonanediamine** (II) and/or 2-**methyl-1,8-octanediamine** (III) 100, crystal nucleating agents 0.01-10, Cu compds. 0.01-1, and halogenated alkali metals 0.01-5 parts. Thus, a mixture of I-II-III copolymer 5000, PKP 80 (talc) 10, Cu iodide 2.5, and KI 20 g was molded into a test piece showing H<sub>2</sub>O absorption 1.14%, flexural modulus (FM) 4300 kg/cm<sup>2</sup> at 200°, FM retention after MeOH treatment at 23° for 1 wk 84%, and Izod impact strength 8.1 kg-cm/cm.

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